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GENERAL ISMAIL: MODERN ARAB LEADER/WARRIOR

by

Delwyn R. Eulberg
Lt Col, USAF

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Advisor: Col Gail Arnott

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Preface

The leadership of General Ismail can be an example for all military students. This is especially true if you define leadership in terms of how much better an army was as a result of that leadership. However, my initial research effort did not begin with a focus on leadership during the 1973 Arab-Israeli conflict. I began my studies by comparing and contrasting the strategies used by both sides during the conflict and their effectiveness. I consulted over 100 different sources and two things struck me. The first was the majority of what was written about the conflict was from a western or Israeli point of view. For example, any analysis of the conflict that favored a strategy used by the Arabs was a result of Israeli *failures* and not described as a successful Arab strategy (i.e. the use of surprise by the Arabs is heavily documented as an Israeli failure of intelligence and not as a successful strategy developed by the Egyptians). When analyzing both sides of this conflict, this becomes more than semantics.

The second point that surprised me was how well the Arabs did during the conflict. They successfully carried out their political and military objectives. Based on the poor performance in the previous Arab-Israeli conflicts, this led me to ask the basic question, "What was different this time?" I believe General Ismail's leadership was the difference and is the main subject of this paper.

You will not find an article or book written about General Ismail. General Ismail was diagnosed with terminal cancer before he was appointed the Minister of War by President

Sadat and died shortly after the war. The articles and books written by Arab participants in the conflict are few and have their own biases such as President Sadat's biography, *In Search of Identity* or General Shazly's book, *The Crossing of the Suez*. However, I found Field Marshal El-Gamasy's book, *The October War, Memoirs of Field Marshal El-Gamasy of Egypt*, to be the most objective view of Arab leadership during the conflict.

General Ismail's leadership had a major impact on the outcome of the conflict and can help any future leader tackle the toughest challenges. However, the best lesson I learned in this research effort is not written anywhere in the text and it is simple—leadership is not defined by which side of the conflict you are on.

Abstract

The 1973 Arab-Israeli War ended differently than the three previous conflicts between these two countries. As a result of this conflict, the Egyptian Armed Forces regained its confidence and pride and Egypt achieved its political and military objectives. Prior to the conflict, military analysts and intelligence experts believed there could be no war between these enemies. Israel was satisfied with the status quo and Egypt would not begin a conflict because the experts believed there was no way the Egyptians could win. The major difference between these conflicts and the outcomes was the appointment of General Ismail to lead the Egyptian Armed Forces.

The purpose of this paper is to outline the strategic leadership of General Ismail prior to the conflict. General Ismail had extensive military education and experience at all levels of command which led to his selection as the Minister of War. General Ismail used his education and experience to craft a strategic vision for the Armed Forces. That vision was rooted in an understanding of his country's and his enemy's political strategies. He knew the strengths and weakness of his country and that of his enemy which he melded into a comprehensive military strategy and a concept of operations. His use of surprise and the military crossing of the Suez Canal and Bar Lev Line are regarded by many military analysts as exceptional military achievements. General Ismail's strategic vision was comprehensive, innovative, and a model for senior leaders.

General Ismail converted his strategic vision into reality through his strength of will. He changed the climate of the Egyptian Armed Forces by instilling a belief in the Egyptian fighting man, revitalizing confidence in the military leadership and in their weapons. He developed this confidence through extensive training at all levels of command. General Ismail ensured the Egyptian fighting man believed in his mission and ability to win through constant communication.

General Ismail was confronted with a task few military leaders have to face. He had to fight a superior enemy with little time to prepare with an army that lacked a strategy and the confidence to carry it out. General Ismail's actions to change this situation can serve as a blueprint for all military leaders. The Ramadan War was different from previous conflicts with Israel—this time the Arabs were lead by a true leader/warrior—General Ismail.

Chapter 1

Introduction

There could be no honor in a sure success, but much might be wrested from a sure defeat

—T.E. Lawrence,
Seven Pillars of Wisdom¹

The fourth Arab-Israeli war erupted on 6 October 1973. In honor of the holy month, the Arabs called the battle the Ramadan War and to Israel it was the Yom Kippur War. The Israeli Armed Forces decisively won the previous three battles in 1948, 1956, and 1967. The Egyptian attack across the Suez Canal was a shock to the Israeli armed forces as well as the rest of the world. All intelligence experts from all the major countries in the world were operating on the assumption that the Arabs would not start a war because there was no way they could win it militarily.² Three weeks after the beginning of the conflict, the United Nations initiated a cease-fire. As a result of the conflict, the Israeli myth of invincibility was shattered. In terms of population, Israel suffered casualty loss rates nearly 30 times as great as the American loss rate in World War II and five times greater than their Egyptian enemy.³ On the other hand, the Egyptian Armed Forces regained their confidence and pride and Egypt achieved their political and military objectives.⁴ Israel learned that this was far different from other wars with the Arabs.⁵

One of the key differences in this war occurred nearly a year before the outbreak of war—the selection of a new senior military leader for the Egyptian Armed Forces—General Ahmed Ismail Ali. Upon his assumption of command, General Ismail spent the following year preparing for war. The purpose of this paper is to analyze his leadership—his preparations for war and why they were the keys to Arab successes on the battlefield. General Ismail's leadership can serve as a model for students of leadership.

The first chapter will review General Ismail's professional military education in learning the principles of war. General Ismail also used this education throughout his career at all levels of command in the Egyptian military. His ability to combine his education and experience lead to his selection by President Sadat as the Minister of War for the 1973 war with Israel.

The next chapter will outline how he used his experience and education to develop a strategic vision for war. General Ismail had to understand the political strategy of both Egypt and that of his enemy. Armed with this knowledge, General Ismail developed a military strategy based on a detailed analysis of his forces as well as those of the enemy. With this in mind as well as a firm grasp of the principles of war, General Ismail then outlined a concept of operations for the conflict.

General Ismail imparted his strategic vision throughout his command through his strength of will. Chapter IV will highlight how he created the right climate through his fundamental belief in the value of the Egyptian fighting man, his ability to increase the confidence of his army in the leadership and finally, in their weapons. Having changed the climate, General Ismail ensured his army was prepared to carry out his strategic vision with aggressive training. General Ismail motivated his troops through constant

communication at all levels—he believed that they must not only know what his strategic vision was and be trained to carry it out, his army must also believe in their cause. The Egyptian army was preparing for battle with a true leader at the top.

Notes

¹Donald Neff. *Warriors Against Israel*. (Brattleboro, Vermont: Amana Books, 1988), 9.

²Tad Szulc. *Then and Now, How The World Has Changed Since WWII*. (New York: William Morrow and Co., Inc., 1990), 345

³T. N. Dupuy *Elusive Victory, The Arab-Israeli Wars, 1947-1974*. (New York, Harper & Row, 1978), 603.

⁴*Ibid.*, 602.

⁵Drew Middleton. *Crossroads of Modern Warfare*. (New York: Doubleday & Company, Inc., 1983), 286.

Chapter 2

General Ismail's Education and Experience

Successful leadership in modern warfare is based on many factors. In the simplest terms, successful leadership is a result of knowing what to do and knowing how to do it. Major Kingseed, in his article 'Education of a Combat Commander,' describes these two principles and states that "a commander can learn the first tenant-what to do-by schooling and experience. Comprehending the second principle is what marks a successful commander."¹ General Ismail's success as the Minister of War for the Egyptian Armed Forces in the Ramadan War of 1973, can be traced to these two principles. The purpose of this chapter is to analyze the first principle of strategic leadership. How did General Ismail know what to do? This chapter will outline General Ismail's extensive military education, his military experience at all levels of command and finally, how the combination of the two lead to his selection as the Minister of War.

Education

In terms of education, General Ismail received extensive professional military education throughout his career. He studied military history from the British and graduated from Egypt's Nasser Higher Military Academy—roughly equivalent to the National War College in the United States—and studied military strategy at Russia's

Frunze Academy.² A more telling tribute to General Ismail is not his attendance but how he approached his studies. While at the Russian Frunze Academy, many of the Egyptian generals considered it beneath their dignity to take notes or to attend classes taught by officers junior in rank. The staff at the Academy characterized General Ismail as the most studious of all the generals as he was always writing, taking notes, and sketching—he made up for his lack of intellectual brilliance by dogged hard work.³ This trait would serve him well later.

Experience

General Ismail applied his extensive military education in many different positions that eventually lead to his many successes during the Ramadan War. General Ismail had extensive military experience, especially in the field, where he rose from commander of an infantry platoon to commander of an infantry division. He served as commander of the Suez Canal Front after the devastating loss to the Israelis during the 1967 war. He was then appointed Chief of Staff of the Armed Forces for six months.⁴ General Ismail's experiences during and immediately after the 1967 war would influence his later decisions as Minister of War. In October, 1969, General Ismail was removed from his position by President Nasser for political reasons and appointed Head of General Intelligence. The appointment did not distance him from the armed forces and his lifelong 'friends-at-arms' as he had regular contact with the armed forces throughout his tenure as Head of General Intelligence.⁵

Selection as Minister of War

General Ismail used his extensive military education and experience while he served as the Head of General Intelligence. General Ismail had prepared an extensive report for President Sadat in the early part of 1972 outlining Egypt's political and strategic situation in the Middle East. This comprehensive report outlined in detail the situation President Sadat faced both politically and militarily in the Middle East. General Ismail concluded in his report that Egypt was not ready for war and warned that any attack mounted or led by Egypt under the present conditions might lead to disaster.⁶ The report made a great impression on President Sadat. With a new sense of urgency, he began to formulate his national objectives more closely with the military leaders of the Egyptian Armed Forces.

President Sadat began to meet regularly with his military commanders after the spring of 1972. President Sadat became increasingly frustrated by the lack of details he was receiving from his military leaders. That frustration came to a head in October 1972 when President Sadat met with the Supreme Council of the Armed Forces to review their preparedness for war. He reviewed the status of instructions given earlier that summer. He discovered the current War Minister had not passed this tasking to the council. The Minister of War did not believe it was possible to wage war until more sophisticated weapons were obtained from Russia.⁷ President Sadat then asked the various commanders about the current status of their defense plan in the event of an Israeli attack (Defense Plan 200). President Sadat learned the plan was out of date and the forces were not prepared for defensive action. He then asked the Council, "How could we hope to launch an offensive when we're not even prepared for defense? Are we going to have another June 1967 defeat?"⁸ President Sadat replaced those on the Council who were

“not prepared to fight and had a defeatist attitude.”⁹ President Sadat appointed General Ismail Commander-in-Chief of the Armed Forces and Minister of War the next morning with the specific orders to fix Egypt’s defenses and draw up an offensive plan in preparation for war.¹⁰ Kingseed’s second principle now moved to the forefront—‘how to do it’ became the challenge.¹¹ To meet the challenge, General Ismail had to first develop a comprehensive strategic vision.

Notes

¹Major Cole C. Kingseed. “Education of a Combat Commander.” *Military Review*, December 1985, 12.

²T. N. Dupuy. *Elusive Victory, The Arab-Israeli Wars, 1947-1974*. (New York, Harper & Row, 1978), 388.

³Muhammad Hasanayn Haykal. *The Road to Ramadan*. (New York: New York Times Book Co., 1975), 182.

⁴Field Marshal Mohamed Abdel Ghani El-Gamasy. *The October War: Memoirs of Field Marshal El-Gamasy of Egypt*. (Cairo, Egypt: American University Press, 1993), 154.

⁵*Ibid.*, 74.

⁶Saad Shazly. *The Crossing of the Suez*. (San Francisco: American Mideast Research, 1980), 31.

⁷Anwar Al-Sadat. *In Search of Identity*. New York: Harper & Row, 1977, 236.

⁸*Ibid.*

⁹Anwar Al-Sadat. “Al-Sadat Reveals New Information on October War: Interview.” *Translations on Near East (JPRS)* November 27, 1974, 16.

¹⁰Anwar Al-Sadat. *In Search of Identity*. (New York: Harper & Row, 1977), 237.

¹¹Major Cole C. Kingseed “Education of a Combat Commander.” *Military Review*, December 1985, 12.

Chapter 3

General Ismail's Strategic Vision

“Strategic vision is the ability to discern the means for the attainment of the ultimate political objective through the use of military force.”¹ As a result of his extensive education in studying military history and great military thinkers such as Clausewitz and Sun Tzu as well as his experiences in the disastrous 1967 war, General Ismail understood the need of a strategic vision. When stationed on the Sinai prior to and during the Six-Day war, General Ismail did not receive any plan of attack or defense for his forces. There was no strategy with clearly defined political goals to guide military strategy and to coordinate all sectors of national activity.² When the Israelis began their attack, the Egyptian commanders were confused and awaited orders from the Minister of War—he alone would direct the military action.³

The lack of a political and military strategy in the 1967 War lead directly to the uncoordinated withdrawal of the Egyptian army with less than two days fighting. Due to this lack of vision, the Arabs found their armies “broken and defeated with over one million of their brethren in the Sinai, Gaza Strip, West Bank, and Golan Heights under Israeli control.”⁴ Israel’s stunning military victory left a profound feeling of humiliation and bitterness among the defeated Arabs.⁵ General Ismail’s strategic vision dramatically changed this outcome in the next conflict. His vision was developed through a solid

understanding and development of political and military strategies based on his military education and experience. These strategies were the foundation for the broad concept of operations for the Ramadan War.

Political Strategy

The 1973 Ramadan War and the close cooperation between President Sadat and General Ismail highlighted their understanding of Clausewitz's key underpinning of war: "War is no pastime, it is a serious means to a serious end . . . war . . . is an act of policy . . . war is a continuation of political activity by other means . . . the political object is the goal, war is a means of reaching it. . . ." ⁶ Driven by the Arab desire to regain the conquered territories, the Arabs first turned to political and diplomatic solutions. ⁷ General Ismail and President Sadat knew that they must first start with an analysis of the political objectives as highlighted in Clausewitz's framework for calculating the outcome of war:

We must first examine our own political aim and that of the enemy. We must gage the strength and situation of the opposing state. We must gage the character and abilities of its government and people and do the same in regard to our own. Finally, we must evaluate the political sympathies of other states and the effect the war may have on them. To assess these things in all their ramifications and diversity is plainly a colossal task. Rapid and correct appraisal of them clearly calls for the intuition of a genius. ⁸

The overall Israeli political strategy after the 1967 War was to maintain the status quo. As a result of the war, Israel's economy blossomed and their security position was strengthened by the additional land gained. Israel's perceived security needs were a dominant consideration in policy making and the development of its military doctrine. ⁹ As a result of the Six-Day War, "major population centers and ninety percent of Israel's farms were out of artillery range, the new borders were shorter and more defensible, and Israel

had acquired defense in depth.”¹⁰ During the 1967 to 1973 period, Israel continued to perceive the Arab intentions as hostile and aggressive and there was a feeling of contempt for the Arabs.¹¹ As the peace process remained stalemated, the Israeli position became more uncompromising and pessimistic on the issue of occupied territories and the peace process.¹²

President Sadat believed Israel was satisfied with the status quo and its de facto annexation of the territories gained during the 1967 conflict and thus believed Israel would make no moves toward reasonable negotiations without pressure from one or both of the superpowers.¹³ Failing to bring Israel to the table diplomatically, President Sadat believed that the only way to bring about a Middle East settlement was to precipitate action that would force the major powers to pay attention to the “no peace, no war” situation.¹⁴ Egypt’s political aim was to use diplomatic, economic (the oil weapon), and limited military operations to force the superpowers to pressure Israel into a settlement favorable to the Arabs. A territorial victory, no matter how small, would instill confidence in the Arabs and force Israel to reconsider its position that territory would provide security.¹⁵

Both President Sadat and General Ismail believed that the two superpowers would have to intervene during the crisis because of the close ties the U.S. had with Israel and Russia with Egypt. They believed that neither superpower would let its respective client state be defeated or risk a superpower confrontation as a result of the new détente.¹⁶ General Ismail understood the import of fighting creditably enough to win political flexibility and to force the Great Powers to intervene.

Both President Sadat and General Ismail understood war was a means to achieve a political end. However, the disastrous 1967 war taught both men the necessary division

between politics and the military. An understanding of the political objective is needed to drive military strategy. The military strategy must be formulated with the political objective as the goal. Politicians should not be heavily involved at the operational and tactical level of military actions during war.

At the national level, the President should be making strategic decisions about national welfare and operational commanders should be making decisions about theater defense. It is a linear relationship. Each should have an understanding of the other's objectives and how they interact.¹⁷

President Sadat makes this point in his biography, "Politicians had been actual commanders of the armed forces in Egypt with disastrous results for us—in the 1956 War, the Yemeni War, and finally in the 1967 War. The armed forces should be professional and should be kept out of politics."¹⁸

General Ismail also saw the dangers of changing political aims and the impact that it had on the conduct of the 1967 war. During the 1967 War, the Minister of War was heavily involved in political issues and never developed a military strategy for the war. The Egyptian commanders were left out in the field with no orders or plan.¹⁹

On the basis of readiness estimates supplied to him by General Ismail, President Sadat decided to go to war in November 1972. Neither President Sadat nor General Ismail believed Egypt had reached or could reach in the near future, tactical-technical parity with the Israeli armed forces. Both men recognized the result of the war could be another Israeli military victory.²⁰

For the Ramadan War, General Ismail requested President Sadat provide a clear political objective that recognized the military capabilities of the Egyptian Armed Forces.²¹

Accordingly, President Sadat issued the Minister of War the political aim for the war: "To prepare the armed forces to secure success in an offensive venture which would break the political stalemate."²² The President's own code name for the venture was *Sharara*, meaning "spark"—a spark to ignite the international political environment and focus on the Middle East.²³

The political goal was clear yet, there was no territorial requirements specified. This gave General Ismail flexibility in developing his military strategy. Both men knew that at least a portion of the occupied territories on the Sinai had to be recaptured to upset the political balance.²⁴ It was up to General Ismail and his staff to figure out the 'how.' As Clausewitz teaches: "No one starts a war—or rather, no one in his senses ought to do so—without first being clear in his mind what he intends to achieve by that war and how he intends to conduct it."²⁵

Military Strategy

General Ismail began his planning for the 1973 Ramadan War shortly after the 1967 defeat when he was appointed Commander of the Eastern Military Zone (the Suez Canal Front). His new Chief of Staff, Mohammed El-Gamasy (later to become Director of Operations during the 1973 conflict) describes General Ismail upon reporting for duty, "When I reported for duty, I found General Ismail alone, with a collection of maps spread out on a rough table in front of him. We reviewed the military situation, analyzing and forecasting, discussing how the forces could be speedily reconstructed to face an arrogant enemy, conceited by a victory won as a result of our own mistakes."²⁶ The development of the Egyptian strategy to regain the lost territories had begun.

Despite the high risks of another Arab defeat, General Ismail believed a limited military success was possible. General Ismail fully understood Sun Tzu when he said: “know your enemy and know yourself; in a hundred battles you will never be in peril,”²⁷ In simple terms, this requires a realistic assessment of your military capabilities and that of your enemy. This section will outline Israel’s doctrine and strategy and their concept of operations. The key to victory would be General Ismail’s assessment of his enemy’s strengths and weaknesses.

Know Your Enemy

Israeli Military Strategy and Doctrine

The Israeli military strategy sought to deter attrition warfare by threatening to respond massively to any limited initiatives by its Arab enemies. This strategy presupposes total military superiority.²⁸ Israel believed they had proven that in the Six-Day War.

The defense concept for Israel revolved around its inability to maintain a large standing army. The Israeli defense doctrine contained three elements: intelligence—which would give the armed forces a warning of at least 48 hours; a small standing army to fight a holding phase; and an air force with a large regular component. The three elements were designed to win time and hold the line until the reserves were engaged.²⁹

The Israeli leadership believed the air force and armor were the decisive factors on the battlefield.³⁰ Speed and maneuver were the keys for the armor as Israel had proven their superiority for mobile land warfare during the Six-Day War.³¹

The Israeli preferred air doctrine was long range interdiction and deep battlefield interdiction. This was displayed by the Israeli air forces during the Six-Day War and again during the War of Attrition.³²

Israeli Concept of Operations

The Israeli concept of operation was based on a possible attack across the Suez Canal.³³ The Israeli plan assumed 48-hour warning of an attack. Standing forces would be put on full alert and mobilization of the reserves would begin with the first armored units at the front within 24 hours.³⁴ If necessary, the standing army with support from armor and the air force would fight a holding phase until the reserves mobilized. This was very possible in the south by the construction of the Bar Lev Line which was a system of fortifications and mobile reserves stretching 100 miles along the Suez Canal—designed to take the Egyptians 48 hours to secure a position on the east bank.³⁵ The Bar Lev Line and the large regular air force would contain any attack, the reserves would mobilize, and then the combined efforts of the armor and air force would counterattack.³⁶

Israeli Advantages

General Ismail's assessment of the Israeli doctrine recognized three major Israeli military advantages—air power, mobile land warfare, and the Bar Lev line. The first of these advantages was Israeli preeminence in the air, and the ability of the Israeli air force to provide effective support to ground operations.³⁷ Israel put a great deal of emphasis on the air force. In the last budget year before the 1973 conflict, 50 percent of all Israeli defense allocations went to the air force and in the six-year period between the wars, the Israeli air force nearly doubled from 300 to 550 combat aircraft.³⁸

The second major advantage to be countered by the Egyptian strategy was Israel's general tactical-technological superiority in mobile ground warfare which focused the use of tank warfare.³⁹ General Ismail was aware of the Israeli superiority in these two areas due to his study of the first three wars with Israel and confirmed by his first hand experience in the Sinai during the Six-Day War.⁴⁰

The next advantage enjoyed by Israel had not been faced before and represented a major military obstacle—the Bar Lev Line. The Bar Lev Line was specifically built along the Suez Canal by Israel after the Six-Day War at a cost of 300 million dollars.⁴¹ The concept was similar to the Maginot Line in France. It was a defensive system designed along Egypt's only attack route—through the Sinai. To get to the Bar Lev line however, the Egyptians also had to overcome the obstacle of the canal itself. The water filled canal was 100 miles long and 180 meters in minimum width. Being at sea level, the canal had no significant currents, however, it had substantial tide currents that ranged in intensity during various times of the year. The tidal current can reach as high as 90 meters per minute. In addition to the tidal currents, the depth of the canal was also a factor in the military planning. The water level of the canal could vary as much as 180 centimeters between flood and ebb levels.⁴²

The Bar Lev Line itself comprised six major elements:

1. An underground and underwater pipeline containing inflammable liquid (napalm), running under the water beside the canal bank and capable of covering the canal with a sheet of flame.
2. The embankment along the entire east bank was 20 or more meters high and 10 meters across at the base. It was designed to conceal prevented amphibious vehicles from climbing it.
3. Dispersed along the canal were 33 strong points and observation posts hardened against artillery attacks.

4. The next obstacle was an extensive minefield system. The minefields were not continuous but were designed to 'channel' attacking forces.
5. Tank embankments were constructed to provide cover for the tanks and provide fields of fire if the attackers crossed the first defensive lines.
6. An extensive road network was constructed for the mobile reserves—primarily for the tank units and artillery.⁴³

Israeli Disadvantages

Despite Israel's advantages, General Ismail believed Israel had a number of disadvantages which must be factored into the military strategy. Due to Israel's small size and population, Israel was inferior in manpower. General Gamasy, General Ismail's Director of Operations during the Ramadan War, stated in his memoirs, "Manpower was a limited resource and a weak link in Israel's armor."⁴⁴ As mentioned earlier, this led to the need for a large reserve force and time for mobilization. From studying the last three wars, it was clear to the Egyptian planners that Israel had an extreme sensitivity to human casualties. During the Egyptian planning phase, General Ismail repeatedly said to his staff, "loss of personnel is more painful to Israel than loss of territory or combat material."⁴⁵ General Ismail also knew that any mobilization of the large reserve force would have a major impact on the Israeli economy and therefore, a prolonged war would be difficult if not impossible for Israel.⁴⁶ The next disadvantage was the long lines of communication as a result of occupying the Sinai.⁴⁷ Lastly, General Ismail believed Israel "was an enemy who suffered the evils of wanton conceit" which limited its preparedness and would allow Egypt to be successful.⁴⁸

Know Yourself

The next challenge for General Ismail was a realistic assessment of his country's ability to fight another war with Israel. This required the same level of scrutiny as did his assessment of his enemy.

Egyptian Advantages

General Ismail believed Egypt had two significant advantages over the Israeli enemy which in turn were keys in developing the Egyptian strategy. The first was Egypt's numerical superiority in manpower and equipment. Egypt had one of the largest standing armies in the world which included 800,000 troops, 2,200 tanks, 2,300 artillery pieces, 150 anti-aircraft missile batteries and 550 first-line aircraft.⁴⁹ The second major advantage was General Ismail's belief that the Egyptian soldier was superior to the Israeli soldiers in defensive combat.⁵⁰ As these beliefs shaped his strategic vision and the outcome of the battle, they are worth exploring further.

General Ismail was well aware that quantitative advantages over your enemy do not mean victory. This belief was based on his professional military education, experience, and study of the past conflicts with Israel. Sun Tzu comments: "In war, numbers alone confer no advantage. Do not advance relying on sheer military power."⁵¹ Clausewitz makes the point as well by stating, "Superior numbers, far from contributing everything, or even a substantial part, to victory, actually may contribute very little, depending on the circumstances."⁵² General Ismail participated in the Six-Day War where the Arabs had a substantial numerical advantage and they were defeated. As General Ismail stated to his Chief of Staff after the Six-Day War, "We must study our mistakes."⁵³

The 'circumstance' to employ the Egyptian forces to full advantage was General Ismail's belief in defensive battle. Clausewitz and Sun Tzu both believed defense is the stronger form of warfare: "Invincibility lies in the defense; the possibility of victory in the attack."⁵⁴ Clausewitz states the same theme: "We repeat then that the defense is the stronger form of war, the one that makes the enemy's defeat more certain."⁵⁵ General Ismail also had experience in this form of battle from a planning standpoint as well as actual combat. Although never implemented due to the hasty withdrawal order, General Ismail was the architect of the first line of defense plan to be established in 1967 along the Suez Canal.⁵⁶

In addition to his planning efforts, his first hand battle experience cemented his belief in the defense and was a prelude to future strategy in the 1973 conflict. Three weeks after the 1967 cease-fire, General Ismail successfully defended the Egyptian city of Port Fuad which lies just east of the northern end of the Suez Canal. The surrounding area was considered "no man's land" after the cease-fire. General Ismail defended the city by deploying a force of approximately 100 men across the canal on barges to set up positions on the causeway. An Israeli force with armor and artillery support advanced immediately. After a fierce, three-hour battle with casualties on both sides, the Israelis called off the engagement only after negligible gains. The Egyptians strengthened their positions and the Israelis never attacked again during the following six years.⁵⁷

Based on a firm understanding of his enemy and Egyptian strengths, General Ismail believed that the defensive battle would counter Israeli strength in mobile warfare as well as inflict heavy casualties on an enemy sensitive to human losses.

Egyptian Disadvantages

General Ismail was not blind to his own problems. The Egyptian disadvantages were twofold: qualitative inferiority in tanks and aircraft and a history of low morale as a result of a series of crushing defeats.⁵⁸ General Ismail believed the qualitative differences could be offset by sound planning and the proper deployment of new weapons received from the Soviet Union.⁵⁹ The military strategy must be in line with the capabilities and weapons of the Egyptian Armed Forces. A comprehensive strategy could overcome this disadvantage.

Having studied the enemy's and his own strengths and weaknesses, General Ismail was now ready to develop the concept of employment for his Armed Forces. Success in a limited military engagement would achieve his country's political objectives.

The Operational Concept

General Ismail discussed the above analysis at length with his military planners in the fall of 1972. Based on the above principles General Ismail provided his planners with the basic operational concept. The concept of operations was rooted in Sun Tzu's principle that "What is of supreme importance in war is to attack the enemy's strategy."⁶⁰ General Ismail issued the instruction that his planners were to begin planning for a joint strategic offensive in cooperation with Syria to force Israel to divide its forces in a two front war. War on the Syrian front would reduce pressure on the Egyptian front because Israel could not buy time with territory as it could in the southern front. This would also allow time for the crossing on the Suez Canal and the Bar Lev Line.⁶¹

Both Syria and Egypt were to rapidly seize strategic territory in the Golan Heights and on the Sinai. Both military forces would establish a defensive posture and wait for the

Israeli's to counterattack against entrenched forces. This strategy would limit Israel's superiority in open warfare and force it to fight a set defensive battle which would cause heavy Israeli manpower losses.⁶² The specific mission of the Egyptian forces was to defeat Israeli forces in the western Sinai by a deliberate assault crossing of the Suez Canal and the Bar Lev line; to seize five or more bridgeheads 10 to 15 kilometers deep on the eastern bank of the Canal; to repel Israeli counterattacks; and to inflict maximum losses on the enemy's forces.⁶³

Key to the success of this overall concept was General Ismail's conversion of his enemy's strengths and weaknesses into a concept of operations that maximized his strengths and exploited his enemy's weaknesses. The following section will explore General Ismail's concept of the use of air power, his strategy for conquering the Suez Canal and the Bar Lev Line, and finally, his use of the element of surprise.

Airpower

General Ismail and his planners had to find an effective answer to Israeli air power displayed in the previous battles but most effectively during in the Six-Day War against ground operations. The Arab front line must be covered to minimize the impact of air interdiction on the initial stages of attack. This was particularly true with the Canal crossing. This would allow the Arab superiority (in numbers) in artillery, troops, and armor to be fully effective during the initial stages of the battle.⁶⁴ The plan to limit the effect of the Israeli air power was to limit the range of operations for the ground forces based on defensive weapons received from the Soviet Union. The plan was to create a dense missile 'wall' with various Soviet ground to air missiles: SAM-2, SAM-3, SAM-6,

and SAM-7 missile system were used as well as conventional anti-aircraft weapons.⁶⁵ This system would provide an umbrella over the planned area of operations and neutralize Israeli air superiority over the immediate battle area.⁶⁶

The second problem presented by the Israeli air force that had to be overcome was the Israeli ability to strike deep within Egypt and attack its infrastructure and air forces. This occurred during the Six-Day War and during the War of Attrition. In both instances, Egypt could not prevent or deter this from happening.⁶⁷ The ability to counter this threat was foremost in General Ismail's planning as he had seen first-hand Israeli effectiveness in June 1967. The Israeli air forces' effectiveness during the Six-Day War destroyed 85 percent of Egypt's fighters and all of its bombers.⁶⁸

To counter this threat, General Ismail traveled to Moscow in February 1972 to convince the Soviets to provide Egypt with missiles that could deter Israel. He was successful as Egypt received Soviet SCUD surface to surface missiles in April 1973. These missiles had a range of 180 miles and the capability to strike Israeli population centers.⁶⁹ President Sadat believed this missile system was the same as having a medium range bomber force.⁷⁰

The use of this strategy is particularly noteworthy because it countered Israeli doctrine. Israeli intelligence and the military leadership believed the Arabs would not attack unless they could attack Israeli airfields and neutralize the air force. This would require a number of squadrons of medium fighter-bombers such as the MIG-23 and Israeli leadership did not believe this was possible until 1975 or beyond.⁷¹ In effect, the Israeli leadership projected its military doctrine and strategy on the enemy.⁷²

General Ismail greatly reduced the Israeli air force's advantages through his understanding of missile technology and its concept of employment. The use of missiles to create an umbrella over the battle area and as a deterrent for Israeli deep interdiction were highly effective.

General Ismail's strategy for the use of his air force was no less ingenious. The Arabs had a numerical advantage of two-to-one in combat aircraft. However, Israeli combat air effectiveness far outweighed any numerical advantage.⁷³ From previous wars, General Ismail knew Israeli pilot skill and aircraft capabilities were superior to Egypt's. This was demonstrated during the Six-Day War with the Israeli ten-to-one kill ratio in air combat.⁷⁴ The Egyptian air strategy was to go after one of Israel's disadvantages—its long lines of communications on the Sinai. The aircraft would be used in the initial attack to strike three airfields, to hit the Israeli Hawk surface-to-air missile batteries, and to bomb three command posts, radar stations, and medium artillery positions.⁷⁵ After the initial attack, the bulk of the air force would be placed in hardened shelters built after the Six-Day War. The strategy was to impose caution on the enemy from striking deep and keeping the air force intact for later action. The plan was to first weaken the Israeli air forces by the extensive missile defense systems and then exploit their reduced capabilities with the Egyptian air forces.⁷⁶

Suez Canal and Bar Lev Line

The Suez Canal and the Bar Lev line represented the greatest military challenge. Many military experts who had studied and visited the Canal and the Israeli defenses declared it to be "insurmountable."⁷⁷ Israeli Chief of Staff Dado Elazar had publicly

declared many times that the Bar Lev line would be "the Egyptian Army's graveyard."⁷⁸ General Ismail knew crossing the canal and the Bar Lev defenses would take "thoroughness, tactical-technical competence in planning and speed of execution."⁷⁹ The military operation required inspiration and therefore they designated the crossing plan as 'Badr'—after the first victory by Mohammed during Ramadan in 624.⁸⁰ General Ismail had decided to attack the Canal along its entire length. This appeared to some military analysts⁸¹ as a fundamental violation of Clausewitz's principles of war regarding concentration of mass—"there is no higher and simpler law of strategy than that of keeping one's forces concentrated."⁸²

The Egyptians had estimated that the absence of such a main effort would itself delay the Israeli counterattack.⁸³ This would force an extended front and therefore dilute the Israeli air force's effectiveness and take advantage of Egypt's numerical superiority in manpower. General Ismail's broad front strategy for the Suez Canal and Bar Lev offensive fit Sun Tzu's principle: "The enemy must not know where I intend to give battle. For if he does not know where I intend to give battle he must prepare in a great many places . . . therefore those I fight in any one place will be fewer . . . he will be weak everywhere."⁸⁴

General Ismail oversaw the staff's development of the Badr plan. The plan called for the use of Egyptian artillery to blast the reservoirs holding the inflammable liquid that was buried in the sand at various points. The Egyptian rangers would also enter the Canal at low tide and clog the underwater outlets with wet cement. The crossings were laid out above the reservoirs so any liquid that was ignited would float harmlessly down the Canal. The first assault would be infantry in boats. They would scale the rampart on the eastern

bank. Once across, the infantry would bypass the strongpoints and set up operations to take out Israeli armor.⁸⁵ This tactic was possible because Russia had supplied the Arabs with over 6,500 precision-guided antitank missiles.⁸⁶ These missiles were carried by infantry in what looked like suitcases.⁸⁷ This concept was very innovative as it countered Israeli military doctrine of “only armor can defeat armor.”

Use of the infantry in this manner also gave the Egyptian engineers time to deploy the new Russian-built pontoon bridges allowing Egyptian armor to cross.⁸⁸ Simultaneously, an innovative method for opening gaps in the sand barrier for the armor on the eastern bank was being used. Egyptian engineers discovered that high-pressure water cannons from Britain and West Germany could scour away as much as 1,500 cubic meters of sand in as little as two hours.⁸⁹ Once the offensive was complete—the armor and air defense missiles were positioned at a depth of 10 to 15 kilometers—General Ismail’s plan called for the forces to set up for defensive actions to inflict massive casualties when the Israelis counterattacked.⁹⁰

Speed was a critical element of the Badr plan. General Ismail fully understood Sun Tzu’s principle that “Speed is the essence of war.”⁹¹ This was particularly important in planning the Suez Canal crossing. The crossing had to be done quickly before the Israeli Air Force could attack and before the Israeli reserves could mobilize. The Israeli plan assumed it would take the Egyptians 24 to 48 hours to secure a foothold on the east bank—if they could do it at all.⁹² The Egyptians accomplished the task in six hours!⁹³

Surprise

The last crucial element in General Ismail's strategy called for something "rare in the history of warfare—surprise."⁹⁴ Clausewitz also believed surprise was nearly impossible: "It is very rare therefore that one state surprises another, either by an attack or by preparations for war."⁹⁵ To make the task even tougher, General Ismail had to overcome one of the basic strengths of Israel—intelligence—to achieve surprise. Israel's total deterrence posture was predicated on early warning and therefore if surprise could be achieved significant military advantages could be gained.⁹⁶ General Ismail believed "in every war, there are two plans, one an operational plan, the other a decoy plan. This decoy plan must be accomplished at the strategic and mobilization level with fixed timing and tables which marched in parallel with the operations plan and in harmony with its timing and tables."⁹⁷ Despite conventional military wisdom and the difficulties involved at planning for surprise at the strategic and tactical level, General Ismail believed surprise was possible at both levels due to Israel's "wanton conceit."⁹⁸

General Ismail believed the advantages of surprise were many. The element of surprise would give the Arabs the added advantage it lacked in the Six-Day War—it prevented a preemptive strike by Israeli air power.⁹⁹ Surprise would also limit the air forces ability to disrupt the initial battle plan. This was particularly important because Egypt needed time to cross the Suez Canal and set up its defensive umbrella. Surprise would also allow the Egyptian air force to strike deep into the Sinai to attack the long Israeli command and communication lines.¹⁰⁰

To achieve surprise, the Arabs had to attack at a time and manner the enemy was unprepared for. This is particularly important as Israel knew the Arab avenues of attack—

the Sinai and Golan Heights. To achieve strategic and tactical surprise, the time and manner of the attack had to be planned carefully.

Timing

General Ismail delegated the task of timing the start of the conflict to his Director of Operations, General Gamasy. The study he completed was indicative of the detailed planning done by the Egyptian staff in preparing for war. General Gamasy chose three possible times for the attack in 1973—May, August, and October. His recommendation was to attack on Yom Kipper Day, 6 October, the Jewish Day of Atonement, because it was assumed that Israeli preparedness would be at its lowest with most of the reserves involved in religious activities.¹⁰¹ Gamasy outlined the following reasons for the timing: October was also Ramadan, the Moslem holy month—a time the Israeli's would least expect an attack; the Suez Canal tides would be at a minimum to aid the Egyptian crossing; elections for the Israeli Knesset were taking place in October and would preoccupy the Israeli public; moonlight was a factor as they wanted the first half of the night for bridging and crossing operations and on 6 October the moon shone from sunset to midnight; and finally, it was a natural cut-off date as weather conditions on the Syrian front deteriorated quickly after October due to snowfall in the Golan Heights.¹⁰² General Ismail was personally involved in negotiating the H-hour with the Syrians. After negotiating several hours, the unusual H-hour of 1405 was selected as opposed to a dawn or dusk assault. This would limit Israel's ability to mount a counterattack before dark.¹⁰³

Manner

One of General Ismail's basic precepts was that this would be a two front war. A coordinated attack on two fronts would put Israel at a strategic disadvantage. This was aimed at the Israeli doctrine of fighting on one front at a time.¹⁰⁴ The use of the new Soviet weapons and General Ismail's innovative tactics with the missile defense systems, use of anti-tank missiles with infantry, and bridging equipment all surprised the Israeli planners.¹⁰⁵

The deception plan designed by General Ismail and President Sadat contained many elements which made this strategy successful: expulsion of 15,000 Soviet advisors in July 1972; massive military exercises in May and August 1973 which caused Israel to mobilize their reserves twice for nothing; misinformation in the Egyptian press about its lack of preparedness; demobilization of 20,000 Egyptian soldiers 48 hours before the war; and finally, open frankness in public speeches about war by President Sadat which appeared to be standard saber rattling.¹⁰⁶ The above actions all lead to surprise.

General Ismail's strategic vision was comprehensive, innovative, and a model for senior leaders. Using his experience and knowledge of the principles of war gained through his military education, he developed a strategic vision to accomplish a military objective and achieve political flexibility. Colonel Dupuy, a noted professional military analyst, stated that the "professional competence of the planning could probably not have been excelled by any other army in the world."¹⁰⁷ Egypt was able to reverse past military defeats by developing this detailed vision. The mastery of the vision was that it was "strategically offensive but tactically defensive and was the opposite of the Israeli military doctrine which was strategically defensive, but highly offensive at the tactical level."¹⁰⁸

With a firm understanding and development of a strategic vision, the next critical challenge for General Ismail was how to convert his strategy into reality.

Notes

¹Mitchell M. Zais. "Strategic Vision and Strength of Will: Imperatives for Theater Command." *Parameters*, 1985, 59.

²Field Marshal Mohamed Abdel Ghani El-Gamasy. *The October War: Memoirs of Field Marshal El-Gamasy of Egypt*. (Cairo, Egypt: American University Press, 1993), 78.

³*Ibid.*, 79.

⁴Capt Bard E. O'Neill "The October War: A Political-Military Assessment." *Air University Review*. July-August 1974, 28.

⁵Drew Middleton. *Crossroads of Modern Warfare*. (New York: Doubleday & Company, Inc., 1983), 267.

⁶Philip Crowl. *The Strategists Short Catechism: Six Questions Without Answers*. Colorado Springs, United States Air Force Academy, 1978, 139.

⁷T. N. Dupuy *Elusive Victory, The Arab-Israeli Wars, 1947-1974*. (New York, Harper & Row, 1978), 343.

⁸Carl von Clausewitz. *On War*. Edited and translated by Michael Howard and Peter Paret. (Princeton University Press, 1976), 585.

⁹Donald Neff. *Warriors Against Israel*. (Brattleboro, Vermont: Amana Books, 1988), 79.

¹⁰Capt Bard E O'Neill. "The October War: A Political-Military Assessment." *Air University Review*. July-August 1974, 28.

¹¹Yehuda Lukacs and Abdalla M. Battah, Ed, *The Arab-Israeli Conflict, Two Decades of Change*, (London: Westview Press, 1988), 372.

¹²Frederick H. Hartman and Robert L. Wendzel. *To Preserve The Republic*. (New York: Macmillan Publishing Company, 1985), 342.

¹³T. N. Dupuy *Elusive Victory, The Arab-Israeli Wars, 1947-1974*. (New York, Harper & Row, 1978), 142.

¹⁴Capt Bard E. O'Neill "The October War: A Political-Military Assessment." *Air University Review* Jul-Aug 1974, 28.

¹⁵Tad Szulc. *Then and Now, How The World Has Changed Since WWII*. (New York: William Morrow and Co., Inc., 1990), 346.

¹⁶William R. Polk *The United States and the Arab World*. (Cambridge, Mass.: Harvard University Press, 1976), 301.

¹⁷Col Donald E. Waddell III. "Situational Leadership for The Senior Leader." *Air War College Leadership and Ethics Readings Handbook AY 1996*, Air University Press, June 1995, 6.

¹⁸Anwar Al-Sadat. *In Search of Identity*. (New York: Harper & Row, 1977), 233.

¹⁹Field Marshal Mohamed Abdel Ghani El-Gamasy. *The October War: Memoirs of Field Marshal El-Gamasy of Egypt*. (Cairo, Egypt: American University Press, 1993), 41.

²⁰T. N. Dupuy "The War of Ramadan: An Arab Perspective of the October War." *Army March* 1975, 13.

Notes

²¹Saad Shazly. *The Crossing of the Suez*. (San Francisco: American Mideast Research, 1980), 38.

²²D.K. Palit. *Return to Sinai: The Arab Offensive, October 1973*. (Dehra Dun: Palit & Palit Publishers, 1974), 31.

²³Ibid., 32.

²⁴Muhammad Hasanayn Haykal. *The Road to Ramadan*. (New York: New York Times Book Co., 1975) 180.

²⁵Carl von Clausewitz. *On War*. Edited and translated by Michael Howard and Peter Paret. (Princeton University Press, 1976), 579.

²⁶Field Marshal Mohamed Abdel Ghani El-Gamasy. *The October War: Memoirs of Field Marshal El-Gamasy of Egypt*. (Cairo, Egypt: American University Press, 1993), 74.

²⁷Sun Tzu. *The Art of War*. Edited and translated by Samuel B. Griffith. (New York: Oxford University Press, 1971), 84.

²⁸Nadav Safran. *Israel, The Embattled Ally*. (Cambridge, Mass.: The Belknap Press of Harvard University Press, 1978), 274.

²⁹Chaim Herzog. *The Arab-Israeli Wars*. (New York: Random House, 1982), 230.

³⁰David Elazar. "Israel's Elazar Evaluates Yom Kippur War." *Aerospace Daily*, November 5, 1975, 151.

³¹Chaim Herzog. *The Arab-Israeli Wars*. (New York: Random House, 1982), 257.

³²Major Donald J. Alberts. "A Call From The Wilderness." *Air University Review*, Vol. XXVIII, No. 1, November-December 1976, 39.

³³Chaim Herzog. *The Arab-Israeli Wars*. (New York: Random House, 1982), 227.

³⁴Nadav Safran. *Israel, The Embattled Ally*. (Cambridge, Mass.: The Belknap Press of Harvard University Press, 1978), 280.

³⁵T. N. Dupuy. *Elusive Victory, The Arab-Israeli Wars, 1947-1974*. (New York, Harper & Row, 1978), 144.

³⁶Drew Middleton. *Crossroads of Modern Warfare*. (New York: Doubleday & Company, Inc., 1983), 275.

³⁷T. N. Dupuy. *Elusive Victory, The Arab-Israeli Wars, 1947-1974*. (New York, Harper & Row, 1978), 389.

³⁸Nadav Safran. *Israel, The Embattled Ally*. (Cambridge, Mass.: The Belknap Press of Harvard University Press, 1978), 275.

³⁹T. N. Dupuy. "The War of Ramadan: An Arab Perspective of the October War." *Army March* 1975, 14.

⁴⁰Field Marshal Mohamed Abdel Ghani El-Gamasy. *The October War: Memoirs of Field Marshal El-Gamasy of Egypt*. (Cairo, Egypt: American University Press, 1993), 78.

⁴¹T. N. Dupuy. *Elusive Victory, The Arab-Israeli Wars, 1947-1974*. (New York, Harper & Row, 1978), 394.

⁴²Ibid.

⁴³Ibid., 395-98.

⁴⁴Field Marshal Mohamed Abdel Ghani El-Gamasy. *The October War: Memoirs of Field Marshal El-Gamasy of Egypt*. (Cairo, Egypt: American University Press, 1993), 136.

Notes

⁴⁵T. N. Dupuy *Elusive Victory, The Arab-Israeli Wars, 1947-1974*. (New York, Harper & Row, 1978), 389.

⁴⁶Drew Middleton. *Crossroads of Modern Warfare*. (New York: Doubleday & Company, Inc., 1983), 272.

⁴⁷Frank. Aker. *October 1973: The Arab-Israeli War*. (Hamden, CT, Archon Books, 1985), 14.

⁴⁸*Ibid.*

⁴⁹T. N. Dupuy *Elusive Victory, The Arab-Israeli Wars, 1947-1974*. (New York, Harper & Row, 1978), 239.

⁵⁰Capt Chris J. Krisinger "Operation Nickel Grass—Airlift in Support of National Policy." *Airpower Journal*, Spring 1989, 14.

⁵¹Sun Tzu. *The Art of War*. Edited and translated by Samuel B. Griffith. (New York: Oxford University Press, 1971), 122.

⁵²Carl von Clausewitz. *On War*. Edited and translated by Michael Howard and Peter Paret. (Princeton University Press, 1976), 194.

⁵³Field Marshal Mohamed Abdel Ghani El-Gamasy. *The October War: Memoirs of Field Marshal El-Gamasy of Egypt*. (Cairo, Egypt: American University Press, 1993), 74.

⁵⁴Sun Tzu. *The Art of War*. Edited and translated by Samuel B. Griffith. (New York: Oxford University Press, 1971), 85.

⁵⁵Carl von Clausewitz. *On War*. Edited and translated by Michael Howard and Peter Paret. (Princeton University Press, 1976), 380.

⁵⁶Anwar Al-Sadat. *In Search of Identity*. (New York: Harper & Row, 1977), 236.

⁵⁷T. N. Dupuy. *Elusive Victory, The Arab-Israeli Wars, 1947-1974*. (New York, Harper & Row, 1978), 348.

⁵⁸D.K. Palit. *Return to Sanai: The Arab Offensive, October 1973*. (Dehra Dun: Palit & Palit Publishers, 1974), 41.

⁵⁹T. N. Dupuy "The War of Ramadan: An Arab Perspective of the October War." *Army March* 1975, 14.

⁶⁰Sun Tzu. *The Art of War*. Edited and translated by Samuel B. Griffith. (New York: Oxford University Press), 1971, 77.

⁶¹Nadav Safran. *Israel, The Embattled Ally*. (Cambridge, Mass.: The Belknap Press of Harvard University Press, 1978), 280.

⁶²*Ibid.*

⁶³T. N. Dupuy *Elusive Victory, The Arab-Israeli Wars, 1947-1974*. (New York, Harper & Row, 1978), 390.

⁶⁴Field Marshal Mohamed Abdel Ghani El-Gamasy. *The October War: Memoirs of Field Marshal El-Gamasy of Egypt*. (Cairo, Egypt: American University Press, 1993), 25.

⁶⁵Chaim Herzog. *The Arab-Israeli Wars*. (New York: Random House, 1982), 228.

⁶⁶T. N. Dupuy. *Elusive Victory, The Arab-Israeli Wars, 1947-1974*. (New York, Harper & Row, 1978), 146.

⁶⁷Chaim Herzog. *The Arab-Israeli Wars*. (New York: Random House, 1982), 307.

⁶⁸Field Marshal Mohamed Abdel Ghani El-Gamasy. *The October War: Memoirs of Field Marshal El-Gamasy of Egypt*. (Cairo, Egypt: American University Press, 1993), 79.

Notes

⁶⁹Chaim Herzog. *The Arab-Israeli Wars*. (New York: Random House, 1982), 229.

⁷⁰*Ibid.*, 308.

⁷¹*Ibid.*, 228.

⁷²*Strategic Military Surprise*. Edited by Klaus Knorr and Patrick Morgan. (London: Transaction Books, 1983), 139.

⁷³T. N. Dupuy. *Elusive Victory, The Arab-Israeli Wars, 1947-1974*. (New York, Harper & Row, 1978), 145.

⁷⁴Nadav Safran. *Israel, The Embattled Ally*. (Cambridge, Mass.: The Belknap Press of Harvard University Press, 1978), 275.

⁷⁵Chaim Herzog. *The Arab-Israeli Wars*. (New York: Random House, 1982), 241.

⁷⁶Nadav Safran. *Israel, The Embattled Ally*. (Cambridge, Mass.: The Belknap Press of Harvard University Press, 1978), 280.

⁷⁷Field Marshal Mohamed Abdel Ghani El-Gamasy. *The October War: Memoirs of Field Marshal El-Gamasy of Egypt*. (Cairo, Egypt: American University Press, 1993), 9.

⁷⁸Donald Neff. *Warriors Against Israel*. (Brattleboro, Vermont: Amana Books, 1988), 116.

⁷⁹Capt Chris J. Krisinger. "Operation Nickel Grass—Airlift in Support of National Policy." *Airpower Journal* Spring 1989, 14.

⁸⁰Donald Neff. *Warriors Against Israel*. (Brattleboro, Vermont: Amana Books, 1988), 103.

⁸¹Frank Aker. *October 1973: The Arab-Israeli War*. (Hamden, CT, Archon Books, 1985), 97.

⁸²Carl von Clausewitz. *On War*. Edited and translated by Michael Howard and Peter Paret. (Princeton University Press, 1976), 204.

⁸³Chaim Herzog. *The Arab-Israeli Wars*. (New York: Random House, 1982), 243.

⁸⁴Sun Tzu. *The Art of War*. Edited and translated by Samuel B. Griffith. (New York: Oxford University Press, 1971), 69.

⁸⁵Donald Neff. *Warriors Against Israel*. (Brattleboro, Vermont: Amana Books, 1988), 126.

⁸⁶T. N. Dupuy. *Elusive Victory, The Arab-Israeli Wars, 1947-1974*. (New York, Harper & Row, 1978), 146.

⁸⁷*Ibid.*, 390.

⁸⁸T. N. Dupuy "The War of Ramadan: An Arab Perspective of the October War." *Army*. March 1975, 17.

⁸⁹Donald Neff. *Warriors Against Israel*. (Brattleboro, Vermont: Amana Books, 1988), 125.

⁹⁰Field Marshal Mohamed Abdel Ghani El-Gamasy. *The October War: Memoirs of Field Marshal El-Gamasy of Egypt*. (Cairo, Egypt: American University Press, 1993), 251.

⁹¹Sun Tzu. *The Art of War*. Edited and translated by Samuel B. Griffith. (New York: Oxford University Press, 1971), 134.

⁹²T. N. Dupuy. "The War of Ramadan: An Arab Perspective of the October War." *Army* March 1975, 16.

Notes

⁹³Ibid.

⁹⁴William Seymour *Decisive Factors in Twenty Great Battles of the World*. (New York: St. Martin's Press, 1989), 360.

⁹⁵Carl von Clausewitz. *On War*. Edited and translated by Michael Howard and Peter Paret. (Princeton University Press, 1976), 199.

⁹⁶T. N. Dupuy. *Elusive Victory, The Arab-Israeli Wars, 1947-1974*. (New York, Harper & Row, 1978), 602.

⁹⁷Charles Wakebridge. "The Egyptian Staff Solution." *Military Review*, March 1975, 8.

⁹⁸Drew Middleton. *Crossroads of Modern Warfare*. (New York: Doubleday & Company, Inc., 1983), 272.

⁹⁹Capt Chris J. Krisinger "Operation Nickel Grass—Airlift in Support of National Policy." *Airpower Journal*, Spring 1989, 164.

¹⁰⁰Chaim Herzog. *The Arab-Israeli Wars*. (New York: Random House, 1982), 241.

¹⁰¹Field Marshal Mohamed Abdel Ghani El-Gamasy. *The October War: Memoirs of Field Marshal El-Gamasy of Egypt*. (Cairo, Egypt: American University Press, 1993), 180.

¹⁰²Ibid., 181.

¹⁰³T. N. Dupuy *Elusive Victory, The Arab-Israeli Wars, 1947-1974*. (New York, Harper & Row), 1978.143.

¹⁰⁴Field Marshal Mohamed Abdel Ghani El-Gamasy. *The October War: Memoirs of Field Marshal El-Gamasy of Egypt*. (Cairo, Egypt: American University Press, 1993), 134.

¹⁰⁵*Strategic Military Surprise*. Edited by Klaus Knorr and Patrick Morgan. (London: Transaction Books), 1983, 138.

¹⁰⁶William R. Polk *The United States and the Arab World*. (Cambridge, Mass.: Harvard University Press), 1976, 295.

¹⁰⁷T. N. Dupuy "The War of Ramadan: An Arab Perspective of the October War." *Army* 25: March 1975, 15.

¹⁰⁸*Strategic Military Surprise*. Edited by Klaus Knorr and Patrick Morgan. (London: Transaction Books, 1983), 138.

Chapter 4

Strength of Will

General Ismail's strength of will enabled him to pass his strategic vision to his subordinates and then for this vision to become reality.¹ This strength of will was passed through many layers of the military—from the senior leader to the individual soldier—to ensure that the vision was adopted by soldiers as their own.² The purpose of this chapter is to outline how General Ismail turned his strategic vision into reality by first changing the climate of the Egyptian military, then communicating his vision to all levels of command, and finally, through intensive training.

Changing the Climate

General Ismail knew that if he was to be successful on the battlefield, he must impart his strategic vision by first changing the climate of the Egyptian military. General Gamasy highlights this by stating in his memoirs, "General Ismail devoted a great deal of time and attention to changing the prevailing mood in the armed forces and to creating the proper atmosphere."³ The difficulty of this task for the strategic leader is to figure out how to change the climate and to determine what needs to be changed. General Ismail attacked this leadership challenge by focusing on the basic values of the organization, then building confidence of the Egyptian soldier in the military leadership, and finally, developing

confidence in the weapons used by the soldiers in carrying out their mission. By changing the climate first, General Ismail was confident that any further improvements in his fighting force would be successful.

Values

The importance of values for a strategic leader is highlighted by Colonel Waddell in his article, "Situational Leadership for the Senior Leader." In his article, Colonel Waddell states that, "Effective senior leaders control the climate of their organization by ensuring their vision, values, and vitality permeate the organization."⁴ General Ismail understood this linkage between the vision, values, and organizational climate. A fundamental value that was key to understanding General Ismail's leadership was his belief in the individual soldier. General Gamasy highlights this value in his memoirs when he stated, "during his years of military service General Ismail had developed the conviction that the human element—the quality of the fighter—and not the weapon was what counted in victory. A soldier, whatever his rank or position and whatever his weapons, had to have confidence in his commanding officers, in his arms, and in the justice of his cause."⁵

General Ismail not only had to believe in the value of the Egyptian fighting man himself but he had to be successful in 'permeating' this value throughout the entire military organization. General Ismail made sure the change in climate started at the very top—to include the commander in chief. President Sadat highlighted this in his autobiography when he wrote, "Our victory came as a result of study followed by training day and night and preceded by faith in and spirit of the Egyptian fighting man, which Lt Gen Sadiq

(General Ismail's predecessor) had omitted from his calculations...it was the Egyptian fighting man who was the primary weapon."⁶

This same belief was shared by all Egyptian generals on General Ismail's staff. General Shazly, General Ismail's Chief of Staff, stated in his autobiography, "Whatever our weapons, our allies, our plans, or our training, the ultimate determinant of success or failure would be the soldier. Of that I was certain."⁷ General Wasil, the Third Army Commander stated in an interview, "Friends and foe alike know that the Egyptian soldiers are men of a different breed—brave fighters of deep faith, conviction, and great courage."⁸ The belief in the Egyptian fighting man was a common theme for everyone serving on General Ismail's staff. Once the leaders all shared the core belief in the Egyptian fighting man, the next challenge was to get the fighting man to believe in his leaders.

Confidence in Leadership

Another challenge for General Ismail's leadership was his belief that trust must exist between the soldiers and their commanding officers or they will fail at changing the climate. This was one of his most difficult tasks. The Egyptian Armed Forces had a history of numerous defeats—the 1967 war was a terrible defeat where the leadership failed to lead. To be successful in building confidence in the military leadership, General Ismail had to attack two problems. The first task was to get military leaders out of politics and then to build confidence in the leadership by building a detailed war plan that involved the military at all levels.

Politics

General Ismail believed that "politics had crept through the back door and that an unacceptable level of political activity was going on and that it had shaken the confidence of the Egyptian soldier and officer alike because the nation's defense capability had been open to doubt."⁹ General Gamasy shared this belief when he wrote, "History is a witness to the fact that when politics infiltrates an army, it inevitably corrupts it."¹⁰ General Ismail believed this so strongly that the second order he gave after taking command was that "politics would not be discussed at general command in order to discourage junior officers from the subject."¹¹

Involvement in Planning

General Ismail believed that past military defeats impacted the confidence of the fighting man as well as the current military posture. He believed the Egyptian soldiers were suffering from 'trench disease' because they have been in a defensive posture along the canal since the 1967 War. This sapped their morale and their will to fight.¹² To instill confidence in the Egyptian military leadership, General Ismail utilized a principle of Total Quality Management (TQM) when developing the detailed war plans. General Ismail inverted the organizational pyramid to get the most out of his followers and make them feel a part of the team.¹³

General Ismail's approach was so different from what the Egyptian leadership style had been, President Sadat made special note of it in his autobiography: "General Ismail had in fact done something unprecedented in military history. He asked every officer in the forces stationed along the canal to climb the fortifications along our side, to look into the Sinai, and then define precisely the plan of action he could carry out after crossing the

canal. In this way the officers were given a chance to build their self-confidence and to participate in the plan for action, apart from carrying it out themselves. I can truly say that the October War Plan was laid down by the whole of our Armed Forces.”¹⁴ Belief in the military leadership and the war plan itself was fundamental to accomplishing the next task.

Confidence in Weapons

The next challenge was to build confidence among both the military leadership and the soldiers themselves in their weapons. The lack of confidence in the available weapon systems was stated many times by the military leadership itself before General Ismail assumed command. One of the main reasons President Sadat removed Lt Gen Sadiq as the Minister of War was his repeated statements that the Egyptian Army needed more sophisticated weapons before they could ever be successful against the Israelis.¹⁵ General Ismail believed that the above conditions should be changed. He was convinced that the weapons were perfectly good, but the general decline in standards and confidence had raised doubts about their quality. If the missions were planned with the capabilities of the weapons in mind, then the next key to success was making the plan a reality through training.¹⁶

Training

Training for an offensive war would raise confidence in the weapons and the leadership and instill a new fighting spirit in the Armed Forces. This was of critical importance because President Sadat had removed all 15,000 Russian advisors, trainers, and technicians three months prior to General Ismail taking command.¹⁷ Arab success or failure now rested squarely on the shoulders of its senior military leadership.

General Ismail knew from his experience during the Six-Day War that training was important in instilling confidence. One of the glaring mistakes before the 1967 War was a lack of training. The year before the 1967 conflict "was one of the worst years for training and witnessed the lowest standards in that training."¹⁸ General Shalzy pointed out the same beliefs: "The senior leaders had neglected the training and development of the individual soldier. The best plan in the world is useless if the young officer or his men do not have the training or will to carry it out."¹⁹ General Ismail changed the standards of training and its tempo. "Training was tough, continuous and repetitious until every man could do his job instinctively, with faith in themselves and their weapons."²⁰

Within weeks of taking command, General Ismail selected new training grounds that were similar to the east bank of the canal and had extensive mock ups constructed of the Bar Lev Line.²¹ Between January and the start of the conflict in October, the commanding general of the engineering corps claimed "that his men had practiced the canal crossing at least 300 times."²² On a larger scale, General Ismail mobilized the Egyptian reserves and conducted major war games with massive troop movements 22 times between the beginning of the year and the start of the conflict.²³ Training instilled a new confidence in the Egyptian fighting man, in his weapons, and in his leadership. To ensure the leadership and the fighting man would be successful, General Ismail also ensured they had confidence in the mission. He did this with constant communication.

Communication

General Ismail ensured that the above beliefs were passed to the lowest level. He understood the principle that "communication is THE critical factor in determining effectiveness of the relationship between the commander and his followers."²⁴ If the

troops were to believe the message, they must hear it from him. General Ismail visited every service at every level and he always emphasized the following points: there was no alternative to war to liberate our land; armed forces were committed to fight at their present potential and capability and there was no need to wait for further weapons; the main concern of the armed forces was to fight, not politics; and our faith in God and the justice of our cause were guarantees of success in war.²⁵ General Ismail's strength of will in making his strategic vision a reality ensured the Egyptian military was prepared for war.

Notes

¹Mitchell M. Zais "Strategic Vision and Strength of Will: Imperatives for Theater Command." *Parameters*, Vol XV, No. 4, 1985, 26.

²Ibid.

³Field Marshal Mohamed Abdel Ghani El-Gamasy. *The October War: Memoirs of Field Marshal El-Gamasy of Egypt*. (Cairo, Egypt: American University Press, 1993), 158.

⁴Waddell, Col Donald E. III. "Situational Leadership for The Senior Leader." *Air War College Leadership and Ethics Readings Handbook AY 1996*, (Air University Press, Jun 1995), 6.

⁵Field Marshal Mohamed Abdel Ghani El-Gamasy. *The October War: Memoirs of Field Marshal El-Gamasy of Egypt*. (Cairo, Egypt: American University Press, 1993), 157.

⁶Anwar Al-Sadat. "Al-Sadat Reveals New Information on October War: Interview." *Translations on Near East (JPRS)* No. 1272:14-30 November 27, 1974, 19.

⁷Field Marshal Mohamed Abdel Ghani El-Gamasy. *The October War: Memoirs of Field Marshal El-Gamasy of Egypt*. (Cairo, Egypt: American University Press, 1993), 84.

⁸Maj Gen 'Adb-al-Mun'im Wasil. "Third Army Commander Describes His Troops' Successes and Confidence." *Translations on Near East (JPRS)* No. 1097:17-21 February 1, 1974, 18.

⁹Field Marshal Mohamed Abdel Ghani El-Gamasy. *The October War: Memoirs of Field Marshal El-Gamasy of Egypt*. (Cairo, Egypt: American University Press, 1993), 155.

¹⁰Ibid.

¹¹Ibid., 157.

¹²Ibid., 155.

¹³Col Donald E. Waddell III. "Situational Leadership for The Senior Leader." *Air War College Leadership and Ethics Readings Handbook AY 1996*, (Air University Press, Jun 1995), 3.

¹⁴Anwar Al-Sadat. *In Search of Identity*. (New York: Harper & Row, 1977), 237.

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¹⁵Ibid., 236.

¹⁶Field Marshal Mohamed Abdel Ghani El-Gamasy. *The October War: Memoirs of Field Marshal El-Gamasy of Egypt*. (Cairo, Egypt: American University Press, 1993), 155.

¹⁷Anwar Al-Sadat. *In Search of Identity*. (New York: Harper & Row, 1977), 230.

¹⁸Field Marshal Mohamed Abdel Ghani El-Gamasy. *The October War: Memoirs of Field Marshal El-Gamasy of Egypt*. (Cairo, Egypt: American University Press, 1993), 41.

¹⁹Saad Shazly. *The Crossing of the Suez*. (San Francisco: American Mideast Research, 1980), 47.

²⁰Charles Wakebridge. "The Egyptian Staff Solution." *Military Review* March 1975, 7.

²¹Ibid., 6.

²²Ibid., 7.

²³Donald Neff. *Warriors Against Israel*. (Brattleboro, Vermont: Amana Books, 1988), 127.

²⁴Carl von Clausewitz. *On War*. Edited and translated by Michael Howard and Peter Paret. (Princeton University Press, 1976), 3.

²⁵Field Marshal Mohamed Abdel Ghani El-Gamasy. *The October War: Memoirs of Field Marshal El-Gamasy of Egypt*. (Cairo, Egypt: American University Press, 1993), 158.

Chapter 5

Conclusion

War erupted for the fourth time between the Arabs and Israelis on 6 October 1973. This conflict was not another decisive victory for the Israeli armed forces. Israel suffered staggering casualty rates and its myth of invincibility was shattered. Egypt came out of the conflict having achieved its political and military objectives with new confidence and pride in the armed forces. This drastic change of fortunes can be traced to the new style of leadership at the top of the Egyptian military. The appointment of General Ismail as the Minister of War one year before the outbreak of war was the deciding factor in Egypt's success.

General Ismail was a professional soldier through both experience and education. He served in various positions throughout the military and was involved in various conflicts to include the 1967 Six-Day War. In addition to this broad experience, General Ismail received extensive military education in Egypt, Britain, and Russia. His understanding of war led to his selection as Minister of War. His task was to quickly prepare his troops for battle. His experience and education gave General Ismail a clear understanding for the need to first develop a comprehensive strategic vision.

The strategic vision encompassed the need to align his country's political objectives with the military's capabilities. The vision involved a clear understanding of his and his

enemy's strengths and weaknesses. General Ismail's analysis was based on his experience and the principles of war. General Ismail utilized these principles to develop a concept of operation for the upcoming conflict maximizing his army's strengths and exploiting his enemy's weaknesses. His planning for the war was brilliant in that it was strategically offensive but tactically defensive. This was the opposite of his enemy's doctrine. The crown jewels in his planning were his concept of airpower, the crossing of the Suez Canal and the 'insurmountable' Bar Lev line, and the achievement of surprise at the strategic and tactical level—these achievements alone mark his visionary leadership abilities as unique in military history.

General Ismail's professional competence in developing a strategic vision was matched by his strength of will in transferring this vision to the Egyptian fighting man. General Ismail's strength of will was manifested through his efforts to change the climate of the military. He started this process by changing the values of the Egyptian military. He believed in the value of the Egyptian fighting man and ensured this belief permeated the entire military organization. He continued to alter the climate of the military by building the confidence of the military in its leadership by taking the military out of politics and through his use of participatory leadership in building the war plan. The final climate change was to rebuild the confidence of the soldiers in their weapons through a belief in a sound military plan effectively using these weapons. The change in climate was significant as the military professionals now believed in themselves, their leaders, and in their weapons.

General Ismail took this new confidence to the next level through aggressive training. Training was the key in building his strategic vision at the level of the fighting man.

Training exercises would be the vehicle to practice his vision and to refine the concept of operations. The aggressive training and exercises also lead to greater confidence in the leadership at all levels of command as well as greater confidence in their weapons.

General Ismail did not stop there. He knew that the fighting man and his leaders must believe in their mission if they are to be successful. He did this through constant personal communication at all levels of command.

General Ismail was confronted with a task few military leaders have to face. He had to fight a superior enemy, with little time to prepare, with an army that lacked confidence. General Ismail's actions can serve as a blueprint for all military leaders. Through his education and experience, General Ismail was able to develop a strategic vision and instill the vision in the Egyptian fighting man through his strength of will. The Ramadan War *was* different from previous conflicts—this time the Arabs were lead by a true leader/warrior—General Ismail.

Bibliography

- Aker, Frank. *October 1973: The Arab-Israeli War*. Hamden, CT, Archon Books, 1985.
- Alberts, Major Donald J. "A Call from the Wilderness." *Air University Review*, Vol. XXVIII, No. 1, November-December 1976.
- Clausewitz, Carl von. *On War*. Edited and translated by Michael Howard and Peter Paret. Princeton University Press, 1976.
- Crowl, Philip. *The Strategists Short Catechism: Six Questions Without Answers*. Colorado Springs, United States Air Force Academy, 1978.
- Dupuy, T. N. *Elusive Victory, The Arab-Israeli Wars, 1947-1974*. New York, Harper & Row, 1978.
- Dupuy, T. N. "The War of Ramadan: An Arab Perspective of the October War." *Army* 25:13-22 March 1975.
- Elazar, David. "Israel's Elazar Evaluates Yom Kippur War." *Aerospace Daily*, November 5, 1975.
- El-Gamasy, Field Marshal Mohamed Abdel Ghani. *The October War: Memoirs of Field Marshal El-Gamasy of Egypt*. Cairo, Egypt: American University Press, 1993.
- Hartman, Frederick H. and Robert L. Wendzel. *To Preserve The Republic*. New York: Macmillan Publishing Company, 1985.
- Haykal, Muhammad Hasanayn. *The Road to Ramadan*. New York: New York Times Book Co., 1975.
- Herzog, Chaim. *The Arab-Israeli Wars*. New York: Random House, 1982.
- Herzog, Chaim. "The Middle East War 1973." *RUSI Journal for Defense Studies*. 120:3-13 March 1975.
- Kingseed, Major Cole C. "Education of a Combat Commander." *Military Review*, December 1985.
- Krisinger, Capt Chris J. "Operation Nickel Grass—Airlift in Support of National Policy." *Airpower Journal*. 3:16-28 Spring 1989.
- Lukacs, Yehuda and Abdalla M. Battah, Ed, *The Arab-Israeli Conflict, Two Decades of Change*, London: Westview Press, 1988.
- Middleton, Drew. *Crossroads of Modern Warfare*. New York: Doubleday & Company, Inc., 1983.
- Mubarak, Lt Gen Muhammad Husni. "Air Force Commander Explains October War Victories: Interview." *Translations on Near East (JPRS)*. No. 1268:3-10 November 20, 1974.
- Neff, Donald. *Warriors Against Israel*. Brattleboro, Vermont: Amana Books, 1988.
- O'Neill, Capt Bard E. "The October War: A Political-Military Assessment." *Air University Review* 25:27-35, July-August 1974.

- Palit, D.K. *Return to Sinai: The Arab Offensive, October 1973*. Dehra Dun: Palit & Palit Publishers, 1974.
- Polk, William R. *The United States and the Arab World*. Cambridge, Mass.: Harvard University Press, 1976.
- Al-Sadat, Anwar. *In Search of Identity*. New York: Harper & Row, 1977.
- Al-Sadat, Anwar. "Al-Sadat Reveals New Information on October War: Interview." *Translations on Near East (JPRS)* No. 1272:14-30 November 27, 1974.
- Safran, Nadav. *Israel, The Embattled Ally*. Cambridge, Mass.: The Belknap Press of Harvard University Press, 1978.
- Safran, Nadav. "Trial by Ordeal: The Yom Kippur War, October 1973." *International Security* 2:133-170. Fall 1977.
- Seymour, William. *Decisive Factors in Twenty Great Battles of the World*. New York: St. Martin's Press, 1989.
- Shazly, Saad. *The Crossing of the Suez*. San Francisco: American Mideast Research, 1980.
- Strategic Military Surprise*. Edited by Klaus Knorr and Patrick Morgan. London: Transaction Books, 1983.
- Sun Tzu. *The Art of War*. Edited and translated by Samuel B. Griffith. New York: Oxford University Press, 1971.
- Szulc, Tad. *Then and Now, How The World Has Changed Since WWII*. New York: William Morrow and Co., Inc., 1990.
- Waddell, Col Donald E. III. "Situational Leadership for The Senior Leader." *Air War College Leadership and Ethics Readings Handbook AY 1996*, Air University Press, June 1995.
- Wakebridge, Charles. "The Egyptian Staff Solution." *Military Review* 55:3-11 March 1975.
- Wasil, Maj Gen 'Adb-al-Mun'im. "Third Army Commander Describes His Troops' Successes and Confidence." *Translations on Near East (JPRS)*. No. 1097:17-21 February 1, 1974.
- Wormser, Michael D. *The Middle East*. Washington DC: Congressional Quarterly Inc., 1981.
- Zais, Mitchell M. "Strategic Vision and Strength of Will: Imperatives for Theater Command." *Parameters*, Vol XV, No. 4, pp. 59-63, 1985.